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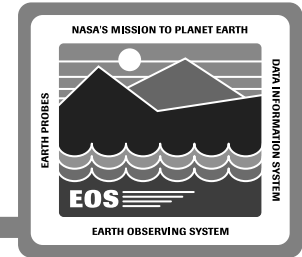
# Reports

## Shawn Firth

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17 October 1995

# Report Features



**Task Analysis showed time spent on report generation > 40%**

**Typically not integrated with ground system**

- Time spent moving files, manual input, etc.

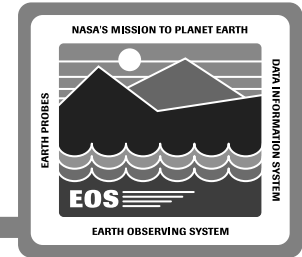
**Our goal was to produce**

- Integrated reporting capability
- Flexible reporting capability

**Report capability, coupled with standing order capability, should show significant savings in report generation man-hours**

# Report Features

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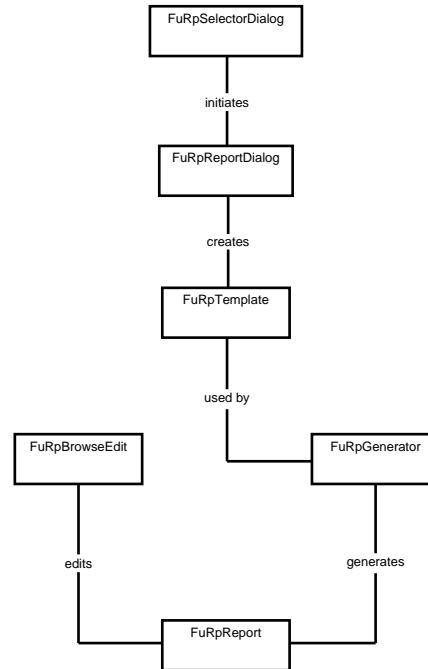
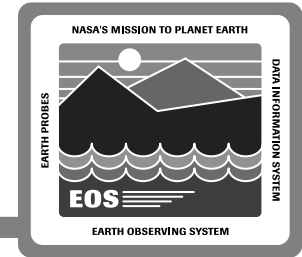
## Report types

- **Routine**
  - **Periodic**
  - **On Demand**
- **Custom**
- **Saved as PDF file (industry standard)**

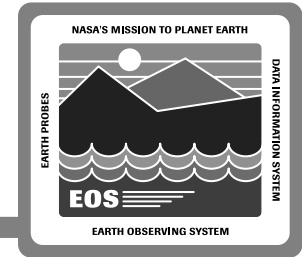
## Report Componentets

- **Report Selector**
- **Report Dialog**
- **Report Template**
- **Report Generator**
- **Report Browser/Editor**

# Reports



# Periodic Reports

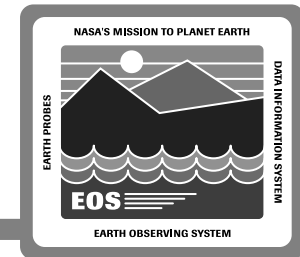


**Generated Automatically by subsystems on a periodic basis**

- **Analysis**
  - **Solid State Recorder Status, etc.**
- **Command Management**
  - **Integrated Report, etc.**
- **Data Management**
  - **Command Report**
  - **TDRSS Service Session, etc.**
- **Planning & Scheduling**
  - **HGA Gimbal Angles, etc.**
- **User Interface**
  - **Command Procedures Report, etc.**

**Periodic reports can be submitted as standing orders**

# Periodic Reports Cont.



AM1 Solid State Recorder Status Report

Report Name AM1 Solid State Recorder Status Report Start Time 99/234 10:00:00 Select Time

Author's Name Jane Operator Stop Time 99/234 10:30:00

Report Output Options Browser Printer File

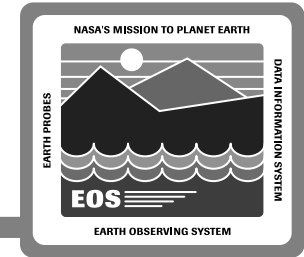
1999 Day 234 12:35:22  
1999 Day 234 11:54:01  
1999 Day 234 11:04:34  
1999 Day 234 10:39:47  
**1999 Day 234 10:14:23**  
1999 Day 234 9:46:26  
1999 Day 234 9:21:54  
1999 Day 234 8:55:36  
1999 Day 234 8:15:07  
1999 Day 234 7:41:29  
1999 Day 234 7:05:45  
1999 Day 234 6:48:21  
1999 Day 234 5:40:05  
1999 Day 234 5:10:34  
1999 Day 234 4:35:18  
1999 Day 234 3:55:56  
1999 Day 234 3:24:12  
1999 Day 234 2:39:59  
1999 Day 234 2:01:34  
1999 Day 234 1:22:48  
1999 Day 233 23:48:15  
1999 Day 233 23:11:42  
1999 Day 233 22:28:10

Find Latest

Find Closest

OK Apply Standing Order Cancel Help

# On Demand Reports

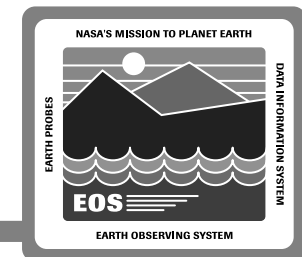


**Generated on demand with input from the user**

- **Analysis**
  - **Parameter Out-Of-Limits, etc.**
- **Command Management**
  - **Dump Miscompare Report, etc.**
- **Planning & Scheduling**
  - **Graphical Timeline Plot, etc.**

**On demand reports can be submitted as standing orders**

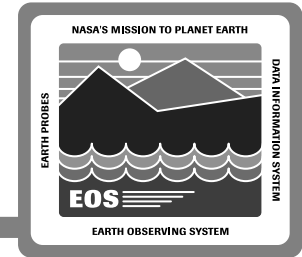
# On Demand Reports Cont.



AM1 Parameter Out-Of-Limits Report					
Report Name	AM1 Parameter Out-Of-Limits Report		Start Time	99/234 12:15:00	
Author's Name	Joe Operator		Stop Time	9/234 13:15:00	
Report Output Options		Browser	Printer	File	
Subsystem	Find	Selected			
AM1-ASTER	MICAMERA	MICPSDAI			
	MICOVER	MICPSDFI			
	MINCALPN	MICPSDNI			
AM1-CERES-Aft	MISCALPN				
	MIPROC				
AM1-CERES-Fore	MIGONIO				
	MICPSAAI				
	MICPSAFI				
AM1-MISR	MICPSANI				
	MISPSBAAI				
	MICPSBFI				
AM1-MODIS	MICPSBNI				
AM1-MOPITT					
AM1-S/C Bus					
Filter	All	All -->	-->	<--	<-- All
OK	Apply	Standing Order	Cancel	Help	



# Custom Reports



**FOT/IOT uses for custom reports:**

- **Weekly reports**
- **Anomaly reports, etc.**

**Can save the report definitions for reuse**

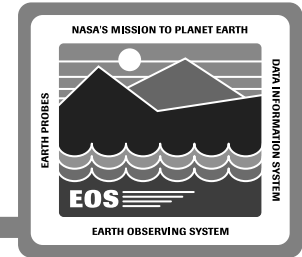
**Custom reports can be submitted as standing orders**

**Contents defined by user, contain any combination of the following**

- **Analysis Products (graphs, tables)**
- **Routine Reports (periodic, on demand)**
- **Screen Snaps of dynamic pages**
- **Free form, user specified text**

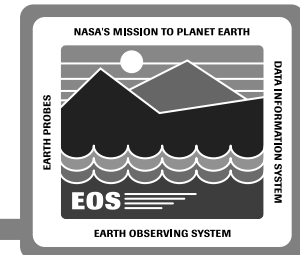
# Custom Reports Cont.

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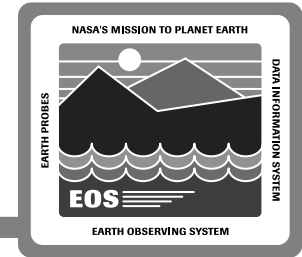
Slide available in hard copy only.

# Custom Reports Cont.



Custom Report				
Report Name	July Battery Anomaly	Load	Start Time	99/207 12:14:00
Author's Name	Jane Operator		Stop Time	99/207 15:34:00
Select Time				
Report Output Options	Browser	Printer	File	
Analysis Requests		Routine Reports		
Battery Depth-Of-Discharge	99/145	View	Parameter Out-Of-Limits 99/145 11:2	
Battery Depth-Of-Discharge	Templa		Parameter Out-Of-Limits 99/207 13:5	
Battery Temperatures	99/145			
Battery Temperatures	Templa			
Battery Voltage Analysis	99/145	Add	Add	
Battery Voltage Analysis	Templa			
		Delete	Delete	
Text 1		Insert Analysis Product	Top Margin	0.5
Report 1	View	Insert Routine Report	Bottom Margin	0.5
Graph 1	▲	Insert Snap	Left Margin	1.25
Graph 2	▼	Insert Text	Right Margin	1.25
Table 1		Insert ASCII File	Landscape	Portrait
	Delete			
OK	Apply	Standing Order	Cancel	Help

# Report Selector



**Allows user to request specific routine reports**

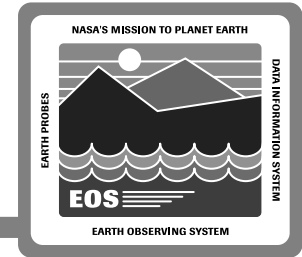
- **Can filter on report type**
  - **On Demand**
  - **Periodic**
- **Can filter on subsystem**
  - **Analysis**
  - **Command Management**
  - **Data Management**
  - **Planning & Scheduling**
  - **Resource Management**
  - **User Interface**
- **Can filter on vehicle**

The logo for the Earth Observing System (EOS) is presented within a rounded rectangular frame. At the top, the text "NASA'S MISSION TO PLANET EARTH" is written in a bold, sans-serif font. The central graphic depicts a stylized landscape with two mountain peaks, a sun or moon in the sky, and wavy lines representing water. The letters "EOS" are prominently displayed in the lower-left portion of the graphic. To the left of the graphic, the words "EARTH PROBES" are written vertically, and to the right, "DATA INFORMATION SYSTEM" is written vertically. At the bottom of the frame, the text "EARTH OBSERVING SYSTEM" is written in a bold, sans-serif font.

706-CD-002-001 Day 2

# Report Template

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**Built by report dialogs**

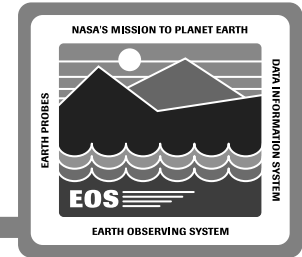
**Comes in three types**

- **Periodic**
- **On Demand**
- **Custom**

**Contains all information needed to generate a report**

**Can be contained in a standing order**

# Report Generator



**Builds report from report template**

**Brings all pieces together and converts them to PDF**

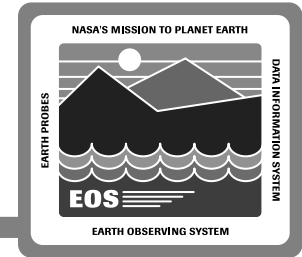
- **Makes analysis requests**
  - Inserts returned products
- **Inserts files**
  - Periodic reports
  - ASCII Files
  - Snaps
- **Generates included reports (Custom only)**

**Outputs report based on user specification**

- **Browser**
- **Printer**
- **File**

**Can be called by the standing order manager with a report template**

# Report Browser/Editor



## Report Browser/Editor Filter

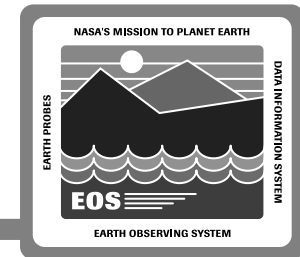
- Allows user to choose which report to browse/edit
- Filters out classes of reports
  - Custom, On Demand, Routine

## Report Browser/Editor

- COTS solution - PDF Browser/Editor (Adobe Acrobat possible candidate)
- Allows a user to browse and edit previously generated reports
  - Browse reports
  - Edit text
  - Annotate graphs, tables, snaps



# Report Browser/Editor Filter



Report Browser

All

AM1 January Battery Anomaly 98/023	Custom
AM1 July Battery Anomaly 99/207	Custom
AM1 Parameter Out-Of-Limits 99/145	On Demand
AM1 Parameter Out-Of_Limits 99/207	On Demand
AM1 Solid State Recorder Status 99/234	Periodic

Edit Report

Report Selector

Report Name AM1 July Battery Anomaly Start Time 99/207 12:14:00

Author's Name Jane Operator Stop Time 99/207 15:34:00

OK Apply Cancel Help

# Report Browser/Editor

